

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 10 FEB 2006

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Applicant's or agent's file reference P210867PCT	FOR FURTHER ACTION	
International application No. PCT/NL2004/000711	International filing date (day/month/year) 08.10.2004	Priority date (day/month/year) 09.10.2003

International Patent Classification (IPC) or national classification and IPC

E01B1/00

Applicant  
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- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - (*sent to the applicant and to the International Bureau*) a total of 2 sheets, as follows:
    - sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

Date of submission of the demand  09.08.2005	Date of completion of this report  13.02.2006
Name and mailing address of the International preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Movadat, R Telephone No. +31 70 340-4006



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/NL2004/000711

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

**Description, Pages**

1-4 as originally filed

**Claims, Numbers**

1-9 received on 09.08.2005 with letter of 09.08.2005

**Drawings, Sheets**

1/3-3/3 as originally filed

a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3.  The amendments have resulted in the cancellation of:

- the description, pages
- the claims, Nos.
- the drawings, sheets/figs
- the sequence listing (*specify*):
- any table(s) related to sequence listing (*specify*):

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages
- the claims, Nos.
- the drawings, sheets/figs
- the sequence listing (*specify*):
- any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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PCT/NL2004/000711

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

- |                               |      |        |     |
|-------------------------------|------|--------|-----|
| ✓ Novelty (N)                 | Yes: | Claims | 1-9 |
|                               | No:  | Claims |     |
| Inventive step (IS)           | Yes: | Claims | 1-9 |
|                               | No:  | Claims |     |
| Industrial applicability (IA) | Yes: | Claims | 1-9 |
|                               | No:  | Claims |     |

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

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(SEPARATE SHEET)**

International application No.

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**Re Item V**

- 1.1 Document EP-A-0379148, which is considered to represent the relevant state of the art, discloses:

- a method for laying a section of railway comprising a railway track consisting of two rails and sleepers by means of which the rails are linked to one another, and a foundation on which the railway track is supported comprising the following steps; preparation of the foundation; supporting the railway track with banking some distance above the foundation; and pouring concrete between the sleepers and the foundation by means of several discharge openings that are alongside one another in the transverse direction (ie. viewed in the transverse direction of the track);

- a device for laying a section of railway with a railway track consisting of two rails as well as sleepers by means of which the rails are linked to one another, and a foundation on which the railway track is supported, comprising a chassis (40) that can be moved along and over the section of railway, which chassis has several discharge openings (92), the height of which can be adjusted relative to the chassis and which are alongside one another viewed in the transverse direction of the chassis, as well as means for feeding ready-mix concrete to said discharge openings.

- 1.2 The respective contributions of method claim 1 and apparatus claim 4 to the state of the art recite as follows: claim 1; making the banking of the railway track and the foundation different, and setting the discharge openings at heights that differ from one another; claim 4; the discharge openings can be set at heights that differ from one another. Consequently, claims 1 and 4, hence claims 2,3, 5-9 respectively appended thereon fulfill the criteria set forth in Article 33(2) PCT.
- 1.3 The problem underlying the invention is to allow working with horizontal foundations over the entire section of railway, i.e. including curved sections thereof.

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- 1.4 The feature in claim 1 of making the banking of a railway track and the foundation different is known in a similar method through DE-A-10048842. However the further feature in claim 1 of setting the discharge openings at heights that differ from one another, and the corresponding feature in claim 4 are neither obvious nor derivable from the state of the art rendered available, whereby all claims fulfill the criteria set forth in Article 33(3) PCT.

(95)

1. Method for laying a section of railway (2) comprising a railway track (3) consisting of two rails (5) and sleepers (6) by means of which the rails (5) are linked to one another, and a foundation (4) on which the railway track (3) is supported, comprising the following steps:

- preparation of the foundation (4),
- supporting the railway track (3) with banking some distance above the foundation (4),

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- pouring concrete (10) between the sleepers (6) and the foundation (4),
- making the banking of the railway track (3) and the foundation (4) different, and
- pouring the concrete (10) by means of several discharge openings (9) that are alongside one another in the transverse direction.

characterised by:

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- setting the discharge openings (9) at heights that differ from one another.

2. Method according to Claim 1, comprising, viewed in the transverse direction, pouring different amounts of concrete (10) per unit length of the width of the railway track (3).

20           3. Method according to Claim 1 or 2, comprising setting the discharge openings (9) at essentially the same distance with respect to the sleepers (6).

25           4. Device (1) for carrying out the method according to one of the preceding claims for laying a section of railway (2) with a railway track (3) consisting of two rails (5) as well as sleepers (6) by means of which the rails (5) are linked to one another, and a foundation (4) on which the railway track (3) is supported, comprising a chassis (15) that can be moved along and over the section of railway (2), which chassis (15) has several discharge openings (9), the height of which can be adjusted relative to the chassis (15) and which are alongside one another viewed in the transverse direction of the chassis (15), as well as means (8) for feeding ready-mix concrete (10) to said discharge openings (9), characterised in that the discharge openings (9) can be set heights that differ from one another.

5. Device according to Claim 4, wherein the discharge openings (9) are linked to one another.

5        6. In combination, a device (1) according to Claim 4 or 5, as well as support tracks (14) that can be installed on the foundation (4) for the section of railway (2) to be laid in order to support the device (1).

10      7. Combination according to Claim 6, wherein auxiliary vehicles (17, 18) are provided that have wheels (16) and the support tracks (14) have a channel shape, in which channel shape the roller members (16) can be accommodated.

15      8. Combination according to Claim 6 or 7, also comprising a hopper (7) for a quantity of ready-mix concrete (10), as well as means (8) for transferring the ready-mix concrete (10) from the hopper (7) to the discharge openings (9).

9. Combination according to Claim 6, 7 or 8, wherein the device (1) has wheels (12) that can be supported on the rails (5).